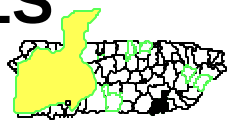
FIBERS PUBLIC SUPPLY WELLS

PUERTO RICO

EPA ID# PRD980763783



EPA REGION 2

CONGRESSIONAL DIST. 01

Guayama County

Guayama

Site Description

The Fibers Public Supply Wells site is located in an industrial and agricultural area in the Municipality of Guayama, with a population of approximately 41,000. There are approximately 50 residents living adjacent to the site. The Fibers Wells served as a stand-by water supply for Guayama. Four of the five wells were closed due to contamination by halogenated solvents. The U.S. Geological Survey detected the contamination in 1982 during a survey of public water wells. A synthetic fiber manufacturing plant operated in an area immediately upgradient of the supply wells. Wastewater from solvent cleaning of the machinery was emptied into two lagoons near the southwestern corner of the site before liners were installed in 1969, as well as later, when the liners were not intact. In 1985, the two wastewater settling ponds were converted into a stormwater retention basin. This conversion consisted of removing approximately 2,000 cubic yards of soil and liners from the lagoons. The material was then spread over the northwestern corner of the project site, known as the soil disposal area (SDA). The wastewater subsequently was piped to an off-site biological treatment system. During the excavation process, the liners in some areas of both of the lagoons were found missing. A pharmaceutical manufacturing facility currently operates on the site.

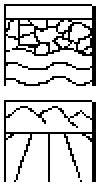
Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY

Proposed Date: 09/01/83

Final Date: 09/01/84

Threats and Contaminants



On-site monitoring well sampling results identified various volatile organic compounds (VOCs) originated from a nearby fiber manufacturer. The soil was also contaminated with asbestos containing materials. Individuals may be at risk if direct contact is made with contaminated groundwater or soil. Closing the contaminated wells has reduced the potential for drinking contaminated groundwater.

Cleanup Approach (Actual Construction Underway)

Under a 1992 Consent Decree, the Potential Responsible Parties (PRPs) transported and disposed of a total of 7,950 tons of asbestos containing material in an authorized landfill in Puerto Rico, between November 1993 and January 1994, in accordance with the ROD signed in September 1991. The Groundwater Remedial Action work plan was approved in September 1996 and initiation of groundwater remedial action activities was initiated in March 1997. Operation of the groundwater pump-and-treat system initially commenced in May 1999 with final startup in September 1999. Groundwater is extracted from four wells (RW-1, RW-2, RW-3 and RW-4) at a combined rate of approximately 450 gpm. The groundwater is treated by air stripping and conveyed to the adjacent Chevron Phillips CORE facility for reuse. Treated water is currently been discharge to Phillips Core as per consultation with PREQB, NOOA, DNRE, USGS and EPA. Construction of Ohmeda's remediation system for the treatment of groundwater containing acetone was also completed in January 1999. Groundwater at Ohmeda was treated with an air stripper followed by bioremediation and subsequently by a second air stripper. Operation of Ohmeda's system was initiated in February 1999 and shutdown in February 2002.

Response Action Status

Initial Actions: Water supply wells were closed after a 1982 survey detected contamination.

Entire Site: In 1991, the potentially responsible parties for site contamination completed the Remedial Investigation (RI) to determine the magnitude and extent of contamination at the site.

Site Facts: Phillips Petroleum Company and Chevron Chemical Company signed an Administrative Order on Consent in 1985 to perform a RI and Feasibility Study (FS) to access the extent of contamination and to identify alternative technologies for cleanup. American Home Products Corporation (AHP) signed an Administrative Order in 1986, agreeing to conduct sampling and analysis at the SDA. Furthermore, AHP signed a new order in 1989 to perform a more detailed field investigation. The investigation was concluded in 1991 and EPA signed a Record of Decision (ROD) in September selecting pumping and treating the groundwater with discharge to the PREPA irrigation canal unless it is determined during the remedial design stage that a more appropriate option exists. The ROD also

selected removal of the contaminated soils at the SDA with off-site disposal. In September 1992, the responsible parties, Anaquest Caribe, Inc.; Phillips Petroleum Company; American Home Products Corporation and Chevron Chemical Company, entered into a Consent Decree wherein they agreed to perform the clean up selected by EPA and reimburse past and future expenses of the United States government. Pursuant to the Consent Decree, the removal of the contaminated soils at the SDA was completed in January, 1994.

Approximately 7,950 tons of ACM and 2,300 tons of non-ACM debris were transported to and disposed of at the BFI Landfill in Ponce, Puerto Rico. Post-excavation samples and test pits confirmed that ACM was not present in the SDA. The Soils Disposal Area Remedial Action Report was submitted in March 1994 and certified that the remedial action was completed as specified in the ROD and Consent Decree.

The Final Design Report for the groundwater was approved on September 28, 1995. The Remedial Action Work Plan was submitted to EPA an approved on September 1996. Air Stripper system installation completed in May 1998. Installation of the remaining discharge pipe completed on January 20, 1999 and system operation initiated in June 1999. Groundwater is extracted from four wells (RW-1, RW-2, RW-3 and RW-4) at a combined rate of approximately 450 gpm. The groundwater is treated by air stripping and conveyed to the adjacent Chevron Phillips CORE facility for reuse. During the operation of the Baxter Acetone Bioremediation System, groundwater was pumped from four recovery wells instead of the five recovery wells specified in the ROD. Ohmeda Caribe operated a bioremediation system to treat the groundwater contaminated with acetone within their premisses. Once Baxter bioremediation system was shutdown, a new extraction well was installed in June 2003 in the area of highest haloether concentrations, in the vicinity of monitoring well PCMW-5 located downgradient of the former Baxter bioremediation system. The location of this well was more effective in capturing haloethers in groundwater than the former recovery wells used with the Baxter system, MW-10-90 and MW-17-90. The extracted groundwater from the new recovery well will be conveyed to the Fibers Site groundwater treatment system.

Up to date, the system has treated 1,054 millions gallons of groundwater which represent an average of 15.23 millions of gallons per month. Preliminary Close Out Report issued on September 1999 and as such a construction completion accomplished in FY 1999. Interim Remedial Action Report signed in September 2000 and as such a Remedial Action completion accomplished in FY 2000. Five Year Review scheduled for third Quarter 2004.

Environmental Progress

By removing the contaminated water wells from service and the asbestos containing materials at the SDA, the potential for exposure to contaminated drinking water as well as soils, has been virtually eliminated. After adding this site to the NPL, the EPA performed preliminary investigations at the Fibers Public Supply Wells site and determined that no other immediate actions were required while further studies and planning for the ultimate remedy took place.